

Serial No. 09/779,273
Docket No. - BAT 0033 PA

Amendments to the Claims

1. (Currently Amended) A cellulosic fiber composite comprising:
a cellulosic material; and
a resin binder comprising vegetable protein hydrolysates and a synthetic resin,
wherein the synthetic resin is phenolic resin, isocyanate resin, or combinations thereof;
and
wherein the composite contains an effective amount of resin binder so as to bind
together the cellulosic material.
2. (Original) The composite as claimed in claim 1 wherein the amount of the resin
binder is between about 2% and about 15% of the dry weight of the cellulosic material.
3. (Original) The composite as claimed in claim 1 wherein the amount of the resin
binder is between about 4% and about 8% of the dry weight of the cellulosic material.
4. (Original) The composite as claimed in claim 1 wherein the amount of the resin
binder is between about 4% and about 6% of the dry weight of the cellulosic material.
5. (Original) The composite as claimed in claim 1 wherein the amount of the resin
binder is between about 4% and about 5% of the dry weight of the cellulosic material.
6. (Original) The composite as claimed in claim 1 wherein the average moisture
content of the cellulosic material is between about 8% and about 35% by weight after
application of the resin binder.
7. (Canceled)
8. (Currently Amended) The composite as claimed in claim 17 wherein the
vegetable protein is soy protein.

Serial No. 09/779,273
Docket No. – BAT 0033 PA

9. (Original) The composite as claimed in claim 8 wherein the soy protein is soy isolate.
10. (Original) The composite as claimed in claim 8 wherein the soy protein is soy flour.
11. (Original) The composite as claimed in claim 8 wherein the soy protein is a blend of soy isolate and soy flour.
12. (Original) The composite as claimed in claim 11 wherein the weight ratio of the blend of soy isolate to soy flour is about 50 : 50.
13. (Original) The composite as claimed in claim 1 wherein the synthetic resin is phenolic resin.
14. (Original) The composite as claimed in claim 13 wherein the phenolic resin is phenol formaldehyde.
15. (Original) The composite as claimed in claim 13 wherein the resin binder has a weight ratio of protein hydrolysates to phenolic resin between about 10 : 90 and about 90 : 10.
16. (Original) The composite as claimed in claim 13 wherein the resin binder has a weight ratio of protein hydrolysates to phenolic resin between about 10 : 90 and about 75 : 25.
17. (Original) The composite as claimed in claim 13 wherein the resin binder has a weight ratio of protein hydrolysates to phenolic resin between about 25 : 75 and about 75 : 25.

Serial No. 09/779,273
Docket No. – BAT 0033 PA

18. (Original) The composite as claimed in claim 13 wherein the resin binder has a weight ratio of protein hydrolysate to phenolic resin between about 25 : 75 and about 50 : 50.

19-29. (Canceled)

30. (Original) The composite as claimed in claim 1 wherein the synthetic resin further comprises paraformaldehyde.

31. (Original) The composite as claimed in claim 30 wherein the weight ratio of the paraformaldehyde to the total of the protein hydrolysates and the synthetic resin is between about 2 : 48 and about 15 : 35 based on 50% resin solids.

32. (Original) The composite as claimed in claim 1 wherein the synthetic resin further comprises high methylol content phenol formaldehyde pre-polymer.

33. (Original) The composite as claimed in claim 32 wherein the molar ratio of formaldehyde to phenol to NaOH of the high methylol content phenol formaldehyde pre-polymer is about 2 : 1 : 0.5.

34. (Original) The composite as claimed in claim 32 wherein the weight ratio of the high methylol content phenol formaldehyde pre-polymer to the total of the protein hydrolysates and the synthetic resin is between about 10 : 90 and about 90 : 10.

35. (Original) The composite as claimed in claim 32 wherein the weight ratio of the high methylol content phenol formaldehyde pre-polymer to the total of the protein hydrolysates and the synthetic resin is between about 25 : 75 and about 75 : 25.

36. (Original) The composite as claimed in claim 1 wherein the composite further comprises a silicone, silane, or combination thereof.

Serial No. 09/779,273
Docket No. - BAT 0033 PA

37. (Original) The composite as claimed in claim 36 wherein the silicone, silane, or combination thereof is applied as a coating to the composite.

38. (Original) The composite as claimed in claim 36 wherein the silicone, silane, or combination thereof is added to the resin binder.

39. (Original) The composite as claimed in claim 36 wherein the amount of silicone, silane, or combination thereof is between about 0.1% and about 1.0% based on the total amount of the cellulosic material.

40-82. (Canceled)

83. (Original) A finished cellulosic fiber composite article prepared by the method comprising:

- a. mixing a protein hydrolysate with a synthetic resin, wherein the synthetic resin is phenolic resin, isocyanate resin, or combinations thereof, to produce a resin binder;
- b. mixing the resin binder with a cellulosic material to form a cellulosic material/resin binder blend;
- c. felting the cellulosic material/resin binder blend to form a low moisture-content mat; and
- d. molding the low moisture-content mat at an elevated temperature and pressure, producing the finished cellulosic fiber composite article.

84. (Original) The article as claimed in claim 83 that further comprises a laminate overlay.